REMARKS

Applicants' undersigned attorney thanks the Examiner for her comments. Applicants respectfully request reconsideration of this patent application, particularly in view of the above Amendment and the following remarks. Currently, Claims 1-45 are pending.

Amendment to the Claims

Claims 1-45 have been examined with no claims being allowed. Amended Claims 1, 12, and 32 are included herein. Applicants request cancellation of Claims 22 and 26. Claims 46 and 47 have been added. No new matter has been added by this amendment.

Applicants have amended Claims 1 and 32 to include the limitation of the matrix polymer "consisting" of an ethylene homopolymer or copolymer, optionally in combination with a compatible olefin polymer or copolymer. Support for this amendment is found at page 6, lines 18-20, and at page 8, lines 17-21, of the specification.

Applicants have further amended Claims 1 and 32 to include the limitation of the polymer that is incompatible with the matrix polymer being present in the film in an amount that is less than the amount of matrix polymer present in the film. Support for this amendment is provided at page 8, lines 15-16, of the specification.

Applicants have amended Claim 12 to include the limitations of Claim 22, and therefore request cancellation of Claim 22. Applicants further request cancellation of Claim 26.

Applicants have added new Claims 46 and 47, each directed to an embodiment in which the matrix polymer comprises a single-site catalyst-formed polyethylene. Support for these claims is provided at page 8, line 21 – page 9, line 4.

No additional fee is due for this Amendment because the number of independent claims remains unchanged and the total number of claims remains unchanged.

Claim Rejections - 35 U.S.C. §102

The rejection of Claims 1-2, 4-9, 11-13, 16-21, 23-26, 29-33, 35-40, and 42-45 under 35 U.S.C. §102(b) as being anticipated by Stopper et al. (WO 98/44025, hereinafter "Stopper") is respectfully traversed, particularly in view of the above Amendment and the following remarks.

Stopper discloses a breathable microporous film that includes a thermoplastic polymer, filler particles, and a mono-functional hindered phenol. Contrary to the Examiner's assertion, Stopper does not disclose a biodegradable film. Instead, the film of Stopper has been designed to have improved strength and stretch characteristics compared to conventional filled films, such that the film is more tolerant of irregularities when stretched.

For a reference to anticipate a claim, the reference must disclose each and every element or limitation of the claim. Stopper does not disclose each and every element or limitation of currently amended independent Claims 1, 12, and 32. Applicants' invention as recited in currently amended independent Claims 1 and 32 requires that the breathable film include a matrix polymer consisting of an ethylene homopolymer or copolymer, optionally in combination with a compatible olefin polymer or copolymer, and a polymer incompatible with the matrix polymer, wherein the film includes a greater amount of the matrix polymer than of the polymer that is incompatible with the matrix polymer. Stopper fails to disclose the combination of a matrix polymer and a polymer that is incompatible with the matrix polymer.

Stopper refers to a "thermoplastic polymer" portion of a film. The thermoplastic polymer portion of the film of Stopper is essentially the matrix polymer of the film. As pointed out by the Examiner, Stopper recites a list of polymers that may be included in the thermoplastic polymer portion of the film. This list of polymers includes polymers of ethylene and/or propylene, such as ethylene-propylene elastomer blends. Certain combinations of ethylene and propylene can be compatibilized. In fact, Stopper defines the term "blend" as a mixture of two or more polymers while the term "alloy" means a sub-class of blends wherein the components are immiscible but have been compatibilized. Further, "compatibilization" is defined

as the process of modifying the interfacial properties of an immiscible polymer blend in order to make an alloy. (Page 5, lines 1-6).

Even though Stopper discloses polymers of ethylene and/or propylene employed within the films, when used in combination these polymers are blended or compatibilized. Stopper further discloses improved polymer distribution, fewer overall irregularities, and "toughness" as some of the benefits of the film composition (Page 12, lines 8-29). Thus, any combination of ethylene and propylene suggested by Stopper is necessarily a compatible combination. The compatibility requirement of Stopper is further supported at page 10, lines 24-26, of the specification.

In contrast, Applicants' invention includes a polyethylene-based matrix and a smaller amount of an ***incompatible*** polymer, such as polypropylene. More particularly, as described at page 7, lines 8-10, of the present application, in a polyethylene matrix, the presence of polypropylene forms a segregated structure due to the thermodynamic incompatibility of polypropylene and polyethylene polymers. Thus, in the present application, it is necessary that the polyethylene and polypropylene polymers are not blended because the incompatibility between these polymers enhances the void formation and, hence, the breathability in the film.

Applicants' invention as recited in currently amended independent Claim 12 requires that the breathable film include a laminate waste material, and that the laminate waste material include a polymer incompatible with the matrix polymer. Stopper fails to disclose the inclusion of any laminate waste material within a breathable film. More particularly, Stopper further fails to disclose the inclusion of laminate waste material that includes a polymer incompatible with a matrix polymer within the breathable film.

For at least the reasons presented above, Applicants respectfully submit that currently amended Claims 1, 12, and 32 are not anticipated by Stopper. Because Claims 2, 4-9, 11, 13, 16-21, 23-26, 29-31, 33, 35-40, and 42-45 depend from Claims 1, 12, and 32, respectively, these claims are also not anticipated by Stopper. Thus, Applicants respectfully request withdrawal of this rejection.

Claim Rejections - 35 U.S.C. §103

The rejection of Claims 1-45 under 35 U.S.C. §103(a) as being unpatentable over Stopper in view of Burns, Jr. et al. (U.S. Patent No. 6,328,723, hereinafter "Burns") is respectfully traversed.

As mentioned above, Stopper discloses a breathable microporous film that discourages the combination of incompatible polymers.

Burns discloses an absorbent article including a breathable microporous film. The film is composed of a thermoplastic resin and inorganic fillers dispersed in the thermoplastic resin. Burns lists ultra low density polyethylene (ULDPE) as one example of a suitable thermoplastic polymer, but does not disclose or suggest that ULDPE is ***equivalent to*** the polymers listed in Stopper. Furthermore, Burns fails to disclose or suggest the inclusion of any incompatible polymers within the film, but instead lists a variety of thermoplastic polymers including polyethylene, polypropylene, or ***blends*** thereof (Col. 6, lines 25-40). As explained above, such polymer blends are compatibilized, as opposed to being in incompatible phases as in the present invention.

Neither Stopper nor Burns, nor the combination thereof, discloses or suggests the inclusion of any incompatible polymers in combination with a matrix polymer that consists of an ethylene homopolymer or copolymer, optionally in combination with a compatible olefin polymer or copolymer.

Additionally, Claims 1 and 32 include the limitation of the amount of incompatible polymer being less than the amount of the matrix polymer. The Examiner suggests that it would have been obvious to one of ordinary skill in the art to have optimized the relative proportions of the matrix polymer and the incompatible polymer through the process of routine experimentation. However, since neither Stopper nor Burns, alone or in combination, discloses or suggests the inclusion of any incompatible polymers, it is unlikely that a person of ordinary skill in the art would find any motivation in either of these references to include any amount of incompatible polymers in a film. Instead, both Stopper and Burns disclose polypropylene, polyethylene, or ***blends*** thereof as suitable types of thermoplastic resin

(i.e., matrix polymer) into which inorganic fillers could be dispersed, but fail to disclose or suggest minor amounts of any incompatible polymers.

The Examiner suggests that it would have been obvious to have used waste polymeric materials motivated by the expectation that waste polymeric materials are readily available, are less expensive, and their use is environmentally friendly. However, laminate waste material includes more than just polypropylene. For example, the laminate waste material used in the Example on pages 14-16 of the present application had the following composition, in percentages by weight: 37.20% $CaCO_3$, 35.80% polypropylene, 20.30% LLDPE, 3.36% ethylene vinyl acetate, and 3.36% copolymer (Page 15, lines 9-12). Neither Stopper nor Burns, nor the combination thereof, discloses or suggests the inclusion of this or any other laminate waste material. Instead, Stopper and Burns both recite polymers by their individual or group names, such as ethylene vinyl acetate or polyolefins. A person skilled in the art would not be motivated to substitute laminate waste material in a composition that calls for polymers in their pure form precisely because of potentially unpredictable effects of the impurities present within waste materials. Applicants' discovered the synergistic effects of such impurities for the purpose of enhancing void formation, and consequent breathability, compared to the same composition made with virgin materials, as illustrated in the Example on pages 14-16 of the present application. As explained above, the film in Stopper is beneficial because of its improved toughness and fewer irregularities. Based on Applicants' invention, it appears that the inclusion of waste materials would increase the irregularities of the film, thereby diminishing the "improvements" in Stopper.

The Examiner states that, with regard to the argument that waste polymers include additional components, the use of the transitional phrase "consisting essentially of" will be considered to be equivalent to the transitional phrase "comprising" for purposes of search and examination absent a showing by Applicants that any additional components would affect the basic and novel characteristics of the invention. Applicants' prior use of the term "consisting essentially of," now amended to "consisting of," is used solely with respect to the composition of the matrix polymer per se and has no bearing on the limitations directed to the waste polymers

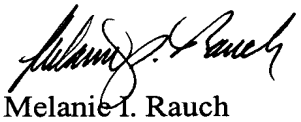
recited in Claims 10, 12, and 41. More particularly, the transitional phrase "comprising" is used to introduce the waste polymer limitations into these claims. As the Examiner is aware, the term "comprising" means that the named elements, i.e., waste polymers, are essential, but other elements may be added and still form a construct within the scope of the claim. Nevertheless, both Stopper and Burns fail to disclose or suggest the inclusion of any sort of waste polymers in a film composition.

For at least the reasons given above, Applicants respectfully submit that the teachings of Stopper in view of Burns fail to disclose or suggest Applicants' claimed invention. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Conclusion

Applicants believe that this case is now in condition for allowance. If the Examiner feels that any issues remain, then Applicants' undersigned attorney would like to discuss the case with the Examiner. The undersigned can be reached at (847) 490-1400.

Respectfully submitted,



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